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INVITED COMMENTARY

Outcomes of Endovascular Repair of Acute Thoracic Aortic Injury: Interrogation of the New Zealand Thoracic Aortic Stent Database

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This article by Christopher Day on the outcomes of endovascular repair of acute thoracic aortic injury highlights the pitfalls as well as the importance of vascular registries to our understanding of the clinical benefit of endovascular repair in patients with acute thoracic aortic injury.

These results were extracted from the New Zealand Thoracic Aorta Stent Database (NZ TAS) administered by the Vascular Society of New Zealand that began data collection in 2001. Of the 134 patients on the database, 27 patients had a trauma to the thoracic aorta and were operated within 14 days of injury. Most procedures were carried out as combined cases by an interventionist and a surgeon in the interventional radiology suite. All cause mortality at 30-day was 4% and 7% at discharge due to associated trauma. No patient developed paraplegia and there were no conversion to open surgery.

Obviously there are many shortcomings in this registry, we don't know how many open repairs of acute thoracic injuries were done during the same period, we don't know the fate of the left subclavian artery and if carotid—subclavian bypasses were done. We have also no details concerning the aortic lesion, i.e. intramural haematoma or free perforation with active bleeding. We have also missing data of the clinical presentation of the patients, stable or unstable.

Despite all these limitations, data from this type of registry are interesting.[1] First, there is a need for continued tracking of thoracic endograft. Secondly, thoracic application of stent graft technology to trauma patients has not been subjected to randomised trials. But it is already a well-established procedure that will probably be difficult to analyse in a randomised controlled trial. Thirdly, the dissemination of this technique in most vascular units raises issues about quality control that the registries should be adapted to address.[2]

The data collected today from the NZ TAS are incomplete, but the point about individual countries needing to collect and analyse national data is an important one. A change of emphasis is necessary and the NZ TAS should now move on to a more complete database with an intention to treat analysis, and in case of trauma, a more complete assessment of associated injuries, including trauma score and a parallel registry of the patients with comparable injuries operated in these centres.

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